No. 11

PROCEEDINGS

of

The Canadian Phytopathological Society

for

1941, 1942, and 1943

IMPERIAL MYCOLOGICAL INSTITUTE
2 AUG 1945

EDITORIAL COMMITTEE

I. L. CONNERS

J. H. CRAIGIE T. C. VANTERPOOL

WINNIPEG, CANADA
1944

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The Canadian Phytopathological Society

List of Officers

1940-1941

President

J. F. Hockey, Dominion Laboratory of Plant Pathology, Kentville, N.S.

Vice-President

F. J. Greaney, Dominion Laboratory of Plant Pathology, Winnipeg, Man.

Secretary-Treasurer

L. W. Koch, Dominion Experimental Station, Harrow, Ont.

Councillors

G. B. Sanford, Dominion Laboratory of Plant Pathology, Edmonton, Alta.

R. S. Willison, Dominion Laboratory of Plant Pathology, St. Catherines, Ont.

1941 - 1942

President

F. J. Greaney, Dominion Laboratory of Plant Pathology, Winnipeg, Man.

Vice-President

L. W. Koch, Dominion Experimental Station, Harrow, Ont.

Secretary-Treasurer

T. Johnson, Dominion Laboratory of Plant Pathology, Winnipeg, Man.

Councillors

J. F. Hockey, Dominion Laboratory of Plant Pathology, Kentville, N.S.

R. R. Hurst, Dominion Laboratory of Plant Pathology, Charlottetown, P.E.I.

1942 - 1943

Officers as in 1941 - 1942.

It is with deep regret that we record the recent deaths of two of the honorary members of the Canadian Phytopathological Society.

Sir Edwin John Butler.

C.M.G., C.I.E., D. Sc., M.B., LL.D., F.R.S.

ON APRIL 4, 1943

Sir Edwin was Imperial Mycologist in India from 1905 to 1919, Agricultural Advisor to the Government of India in 1920, Director of the Imperial Mycological Institute from 1920 to 1935, and Secretary to the Agricultural Research Council of Great Britain from 1935 to 1941. On learning of his death, the President of the Canadian Phytopathological Society wrote to Lady Butler expressing on behalf of the Society our sympathy and our appreciation of the services performed by Sir Edwin in the cause of phytopathology.

Professor William Pollock Fraser.

M.A., LL.D.

ON NOVEMBER 23, 1943

Professor Fraser was Assistant Professor of Biology at Macdonald College (McGill University) from 1912 to 1919. From 1919 to 1925 he was Officer-in-Charge of the Dominion Laboratory of Plant Pathology at Saskatoon, Sask., and Lecturer in Biology at the University of Saskatchewan. He was appointed Professor of Biology at the same University in 1925 and retained this position until his retirement in 1937, when he was appointed Professor-Emeritus of Biology. As an expression of sympathy to Mrs. Fraser, and in recognition of the great services rendered by Professor Fraser to phytopathology in Canada, the funeral was attended by the President of the Canadian Phytopathological Society and a floral tribute was sent on behalf of the Society.

INTRODUCTION

Owing to conditions imposed by the war, no annual meetings have been held since 1940 and no Proceedings published. The absence of annual meetings does not mean that the Society has been inactive during this period. The organization of regional groups within the Society has given members the opportunity of considering plant pathological problems arising from the war, and the fact that the President is a member of the War Committee of the American Phytopathological Society has served to keep the Canadian regional groups informed of developments in that country. The present Proceedings results chiefly from the desire of the Council to inform the members concerning the activities of the Society in this connection, and provides, furthermore, an opportunity of bringing the records of the Society up to date.

REPORT OF THE PRESIDENT

In a scientific organization such as the Canadian Phytopathological Society, with members scattered from coast to coast, it is essential that members should meet at least once a year to present the results of their scientific work, to exchange ideas, to discuss matters concerning the welfare of the Society, and to put forth views and proposals concerning ways and means by which the activities of the organization can advantageously be planned, directed, and completed. Owing to the demands of the war, a national meeting of the Society has not been held since 1940. After the 1940 annual meeting, it became apparent that only by organizing the membership on a regional basis could the Society continue to function effectively. Thus, in 1941, on the recommendation of the retiring Council, and its President, J. F. Hockey, eight regional groups were formed. The following members were appointed by the President to act as official representatives of the Society in their respective regions: W. Newton, British Columbia; G. B. Sanford, Alberta; T. C. Vanterpool, Saskatchewan; F. J. Greaney, Manitoba; L. W. Koch, Western Ontario; I. L. Conners, Eastern Ontario; E. Campagna, Quebec; and J. F. Hockey, Maritime Provinces.

The Council, and I feel sure the Society as a whole, is grateful to the regional representatives of the Society for the excellent work they have performed during the last three years. It is also a pleasure to thank the members of Standing Committees of the Society for their assistance and cooperation. The publication of the "Check List of Diseases of Economic Plants in Canada" marked an important milestone in the history of the Society. The thanks of the Society are extended to Ivan H. Crowell, chairman of the Common Names Committee, for completing this very difficult task. Grateful acknowledgment is also made to the Department of Plant Pathology, Macdonald College; the Quebec Department of Agriculture; and members of the Division of Botany and Plant Pathology, Central Laboratory, Ottawa, for their material assistance in the preparation of the List. The Society is indebted to the Dominion Botanist for his continued interest and cooperation in the work, and to Science Service, Dominion Department of Agriculture, for mimeographing and distributing the publication. In passing, it should be mentioned that the work of the Common Names Committee is continuing, and supplements to the "Check List" are in the course of preparation.

The President had the honour of representing the Society at the 1941 and 1942 annual meetings of the American Phytopathological Society. This was made possible through the good offices of the Dominion Botanist and the Director of Science Service, Department of Agriculture, Ottawa. In 1942, the President of the Society was appointed Canadian representative of the War Committee of the American Phytopathological Society. As a member of this committee, he has been able to keep in close touch with the war work of American plant pathologists, and to inform members of our society of new phytopathological trends and developments in the United States. Officers and members of the American Phytopathological Society have repeatedly expressed the view that everything possible should be done to integrate the activities of Canadian and American plant pathologists as closely as possible so that the knowledge and services of plant pathologists in both countries could be used to the best advantage in the war effort. It is a pleasure to report that during the past two years the closest cooperation has existed between our society and the national, regional, and special sub-committees of the American Phytopathological Society.

In spite of many difficulties the Society continues to perform useful work. During 1941-42 and 1942-43, successful meetings were held in each of the eight geographical regions of the country. The minutes of these meetings are summarized in this report. These regional meetings provided an opportunity for the members to discuss the activities of the Society, and facilitated the dissemination of the latest information concerning the activities of the War Committees of both the Canadian and the American Phytopathological Societies.

The 1941 and 1942 reports of regional meetings of members of the Society indicated that one of the greatest needs of plant pathology in Canada was an adequate extension service. On several occasions this need was brought to the attention of the appropriate authorities. The Society has every reason to believe that the position of extension plant pathology in this country will be improved in the near future.

In recent years it has become increasingly evident that a great amount of plant pathological work in Canada that should normally be controlled by plant pathologists is actually being administered and carried out by non-pathologists. It is the opinion of the officers of the Society, and of a large body of members, that it would be in the best interests of plant pathology in Canada if the whole responsibility of plant disease research, extension, regulation, and control were placed in the hands of professional plant pathologists. It would seem that the time has come for the Society to put forth every effort to improve conditions affecting the welfare of its members, and to strengthen the position of plant pathology in Canada.

With the war nearing a climax, our thoughts are turned to the post-war period. At this time post-war reconstruction and re-habilitation schemes are being considered by governments and other agencies. We, as a Society, stand ready to assist, in any way possible, these organizations in their post-war undertakings. However, in these critical days let us not slacken for one moment our support of the country's war effort. It is our hope that, with the help of the members, the Society will continue to take an important and useful part in solving the problems that lie ahead.

ITEM OF SPECIAL INTEREST

In 1942, the Royal Society of Canada awarded the **Flavelle Medal** "for original research of special and conspicuous merit" to Dr. J. H. Craigie, Officer-in-Charge, Dominion Laboratory of Plant Pathology, Winnipeg, Man., in recognition of his work on "Sexuality in the Rust Fungi." The Society extends its congratulations to Dr. Craigie in winning this notable Canadian award for original research in the biological sciences.

REPORT OF STANDING COMMITTEES

Of the four standing committees of the Society two have submitted no reports, namely, the Editorial Committee and the Committee on the Imperial Mycological Institute. The two following reports have been received from the Common Names Committee (Chairman: I. H. Crowell) and from the War Emergency Committee (Chairman: F. J. Greaney).

REPORT OF THE COMMON NAMES COMMITTEE

During the past two years this committee, in cooperation with the Check List Committee of the Quebec Society for the Protection of Plants, and nearly all Canadian plant pathologists, assembeled, for publication, its findings, in bilingual form, under the title "Check List of Diseases of Economic Plants in Canada."

Financial assistance for typing, proof reading and preparation of English and French indices to common names of host plants was obtained from the Canadian Phytopathological Society. The Check List was mimeographed by the Division of Botany and Plant Pathology which organization has undertaken also the distribution of the "Check List" to essentially all those who receive the annual reports of the Canadian Plant Disease Survey. Mimeographing was begun early this summer and the publication will doubtless soon be issued.

IVAN H. CROWELL, Chairman,

Common Names Committee

September 15, 1942.

REPORT OF WAR EMERGENCY COMMITTEE

Report for 1940-41

At the tenth annual meeting of the Society held at Winnipeg, Man., June 20-22, 1940, the following War Emergency Committee was re-appointed: J. F. Hockey (Chairman), J. E. Howitt, H. T. Gussow, E. Campagna, J. H. Craigie, T. C. Vanterpool, A. W. Henry, W. Newton, and L. W. Koch (Secretary). During the year the Committee continued to examine ways and means by which the Society could most effectively be of service to Canada in the war effort.

The Committee brought forward a number of recommendations, some of which are still being acted upon. Problems of national importance to the war effort, particularly in regard to the protection of food supplies and other materials, both in the field and in storage, against deterioration by disease, were given close attention. During the year the Committee devoted considerable time and effort to the preparation and dissemination of information concerning the nature and control of Bacterial Ring Rot of potatoes. It was emphasized that this was one of the most infectious and destructive seed-borne potato diseases in America, and that its spread was a menace to the potato industry of Canada. The information provided through the help of the Committee was very favourably received by growers and organizations interested in the welfare of the potato industry in this country.

In October, 1941, the Chairman of the Committee, J. F. Hockey, informed the President of the Society that members of the Committee were of the opinion that the duties and responsibilities of the War Emergency Committee could be best performed by the Council of the Society, and recommended that the President appoint members from each geographical region of the country to act with the Council as a new War Emergency Committee. The 1941-42 Council was asked to give the matter immediate consideration and attention.

Report for 1941-42 and 1942-43

In December, 1941, the duties and responsibilities of the War Emergency Committee were taken over by the Council of the Society, and the Committee was expanded to include members from each province or geographical region of Canada. The personnel of the new committee was as follows: F. J. Greaney (Chairman), L. W. Koch, T. Johnson, J. F. Hockey, R. R. Hurst, E. Campagna, G. B. Sanford, T. C. Vanterpool, W. Newton, and I. L. Conners.

The regional representatives of the Society were asked to organize meetings in their respective districts to discuss the work of the War Emergency Committee, and to submit to the Council recommendations concerning problems of national importance to the war effort. During 1941-42 and 1942-43, meetings were held in each of the eight regions of the country. At these meetings the following problems, among others, were repeatedly stressed as important to the war effort: (1) the establishment of an adequate plant pathology extension service in Canada, fostered by federal and provincial departments of agriculture, (2) a more rapid translation into field practice of the latest findings of research, (3) expansion and intensification of plant disease surveys, (4) closer cooperation between Canadian and American phytopathologists, (5) intensified research on seed-borne diseases of field and vegetable crops, and concerning the develop-

ment of more effective seed treatments, (6) the securing of more definite information in respect to the availability of fungicides and seed disinfectants in Canada, and intensification of the search for substitute fungicides, (7) the review of domestic quarantines with a view to their stricter enforcement, (8) additional forest pathological research in respect to the protection of valuable timber, and the elimination of waste from various causes, and (9) more intensive research on the diseases of special war-time crops such as flax, soybean, sugar beet, sunflower, etc.

In 1941 and 1942, the War Emergency Committee submitted several memoranda to the appropriate federal authorities concerning the establishment of an extension plant pathology service, and the expansion of plant disease survey work in Canada. The views of the Society on these subjects were well received, and the authorities indicated their intention of supporting them when the proper time arrives. It would seem that the Society can anticipate definite action in regard to the expansion of these activities in the near future.

The importance of securing information concerning the availability of fungicides and seed disinfectants in Canada, and of initiating a search for substitutes, where necessary, was brought to the attention of officials of the Dominion Department of Agriculture early in 1942. The Committee was informed that information respecting the quantities of such materials available and likely to be available in Canada, could most effectively be obtained by the Pesticides Administrator, War-Time Prices and Trade Board. To further this work, a committee known as the Pesticides Requirements Committee was appointed by the Agricultural Supplies Board. The personnel of this special technical committee was comprised of officers of Science Service, Department of Agriculture, Ottawa. Early in 1943, the Pesticides Requirements Committee, in cooperation with responsible officials of the federal and provincial agricultural services, made a survey to determine actual pesticide requirements of the Dominion for that year. Members of the War Emergency Committee of the Society assisted the Pesticides Requirements Committee in this important work.

During the past two years the War Emergency Committee has worked as closely as possible with the national, regional, and special sub-committees of the War Committee of the American Phytopathological Society. As Canadian and American phytopathologists are confronted with many of the same problems, it was recognized that the free interchange of information was important to plant pathologists on both sides of the border. Thus, every effort was made by the Committee to disseminate information concerning new developments and trends in plant pathology in Canada and the United States to members of both the Canadian and American societies.

In Canada, plant pathological problems of direct importance to the war effort are receiving first attention. The reports of regional meetings of members of the Society indicate that, on the whole, the phytopathological needs of the Canadian agriculturist and horticulturist are being met, although in the prairie provinces the needs of the agriculturist are more adequately met than are those of the horticulturist. This condition is now receiving the attention of the appropriate authorities, and an early improvement in the position can be expected. There appears to be, however, a very urgent need for the intensification of forest pathological research in Canada. It has been pointed out to the appropriate authorities that even though this phase of work cannot be

expanded in the war years, it is important that it be given first consideration in any plan for the expansion of plant pathological activities in the post-war period.

In January, 1943, the services of the Canadian Phytopathological Society were offered to the Canadian Medical Procurement and Assignment Board, Department of National Defence, Ottawa, in its work of organizing all the existing resources in Canada for guarding the health of the nation in this time of war emergency. Dr. T. R. Routley, General Secretary of the Board, thanked the Society for its thoughtfulness in this matter, and forwarded the Society's offer to the Director-General of Medical Services, Department of National Defence, Ottawa. The Director-General informed the Council that he was highly appreciative of the Society's offer to assist the Army Medical Services in their war effort.

One of the main functions of the Committee has been to keep the members of the Society in touch with the war-time problems and developments in plant pathology in Canada and the United States. The assistance and cooperation of the regional representatives of the Committee in carrying out this work is greatly appreciated. Through the interest and support of individual members, the work of the Committee was made more effective, and in all respects more useful.

F. J. GREANEY, Chairman,

War Emergency Committee.

February 1, 1944.

REPORT OF THE SECRETARY-TREASURER

Election of Officers:

For the year 1941-42. The ballot for the election of officers for the year 1941-42 resulted in the following being elected: President, F. J. Greaney; Vice-president, L. W. Koch; Secretary-Treasurer, T. Johnson; Councillor, R. R. Hurst.

For the year 1942-43. Nomination ballots sent to members in March, 1942, resulted in the nomination for President of F. J. Greaney, D. J. MacLeod, and T. C. Vanterpool; for Vice-President of A. W. Henry, J. F. Hockey, and L. W. Koch; for Councillor of R. R. Hurst, Margaret Newton, and W. Newton. Ballots for the election of officers resulted in the re-election for the year 1942-43 of the officers for the previous year, namely, President, F. J. Greaney; Vice-President, L. W. Koch, and Councillor, R. R. Hurst.

For the year 1943-44. Nomination ballots sent to members in March, 1943, resulted in the nomination for President of F. J. Greaney, A. W. Henry, and

L. W. Koch; for Vice-President of J. F. Hockey, R. R. Hurst, and T. C. Vanterpool; for Councillor of W. C. Broadfoot, D. J. McLeod, and P. M. Simmonds; for Seretary-Treasurer of W. A. F. Hagborg, T. Johnson, and R. C. Russell. Ballots for the election of officers resulted in the following being elected: President, F. J. Greaney; Vice-President, T. C. Vanterpool; Councillor, W. C. Broadfoot, and Secretary-Treasurer, T. Johnson. The last office is tenable for the period 1943-1945.

Membership

A slight increase in membership took place during the year 1941-42. Five new members joined the Society and three former members were re-instated. Paid-up membership at the end of the year 1941-42 was 76. During the year 1942-43 one new member joined and five dropped their membership, leaving the paid-up membership at 72.

Enlistment of members:

The following members have enlisted in the armed forces since the commencement of the war:

G. W. Ayers
W. F. Hanna
K. A. Harrison
P. W. Newell
C. G. Riley
D. B. O Savile (Honorably discharged)

FINANCIAL STATEMENT

1940 - 1941

REVENUE:			
Balance forward			$659.25
Fees: 1939	$ 3.00		
1940	57.00		
1941	6.00		
1942	1.00		
		$ 67.00	
Bank Interest		4.76	
Premium on U.S. Currency		1.55	
Sales of Proceedings		9.25	
		$ 82.56	$741.81
EXPENDITURE:			
Stenographic Services (1939-40)	$ 15.00		
Printing 1940 Proceedings	49.68		
Exchange and Excise Stamps	1.02		
Stamps	12.00		
Envelopes	4.50		
		$ 82.20	
Balance on hand, May 31, 1941			$659.61

The above is a financial statement by the auditors, Mr. H. N. Racicot and Mr. I. L. Conners, forwarded to me on Aug. 25, 1941, by the past Secretary-Treasurer, Dr. L. W. Koch.

T. JOHNSON,

Secretary-Treasurer.

FINANCIAL STATEMENT

1941 - 1942

REVENUE:			
Balance forward			$659.61
Fees: 1940-41	$ 1.00		
1941-42	67.28		
1942-43	3.00		
1943-44	1.00		
		$ 72.28	
Bank Interest		1.70	
Premium on U.S. Currency		.70	
		$ 74.68	$734.29
EXPENDITURE:			
Stenographic Services (1940-41)		$15.00	
Stenographic Services (1941-42)		15.00	
C.P.R. Freight and Express Charges		7.65	
Preparation of "Check List of Economic Diseases"		75.00	
Victory Bond		500.00	
Excise Stamps		.12	
Bank Charges and Exchange		3.11	
Receipt Books		1.00	
Stamps		9.00	
		$625.88	
Balance (in bank and cash on hand), May 31, 1942			$108.41
ADDITIONAL ASSET:			
Dominion of Canada 3% Victory Bond			$500.00

AUDITORS' REPORT

The books of the Canadian Phytopathological Society have been audited and found correct.

(Signed) H. N. RACICOT
I. L. CONNERS

Nov. 9, 1942.

FINANCIAL STATEMENT

1942 - 1943

REVENUE:

Balance forward			$108.41
Fees: 1941-42	$ 1.00		
1942-43	64.00		
1943-44	6.00		
1944-45	1.00		
		$ 72.00	
Bank Interest		.63	
Premium on U.S. Currency		1.20	
Interest on Bond		15.00	
		$88.83	$197.24

EXPENDITURE:

Mimeograph Paper	$ 1.90	
Stamps	12.00	
Bank Exchange	.90	
Stenographic Services (1942-43)	15.00	
	$ 29.80	
Balance (in bank and cash on hand), May 31, 1943		$167.44

ADDITIONAL ASSET:

Dominion of Canada 3% Victory Bond	$500.00

AUDITORS' REPORT

The books of the Canadian Phytopathological Society have been audited and found correct.

(Signed) I. L. CONNERS
H. N. RACICOT

Sept. 23, 1943.

REPORTS OF REGIONAL MEETINGS

During 1941-42 and 1942-43, meetings of members of the Society were held in the following districts: Maritime Provinces, Quebec, Eastern Ontario, Manitoba, Saskatchewan, Alberta, and British Columbia. A summary of the minutes of these meetings is presented in this report.

MARITIME PROVINCES

A meeting of the Maritime group was held at Kentville, N.S., April 16-17, 1942. The following plant pathologists were present: R. R. Hurst, D. J. MacLeod, W. K. McCulloch, G. W. Hope, and J. F. Hockey (Chairman). This meeting was devoted to a discussion of war-time plant pathological problems, and the following recommendations were approved by the meeting:

1. Owing to the way in which some new varieties of plants act as carriers of disease (e.g., Katahdin potato and leaf roll) it is recommended that new varieties of plants be subjected to a rigid test for disease susceptibility, particularly virus, before permitting their introduction to commercial producers.

2. It is recommended that a request be made to G. A. Scott, Central Laboratory, Ottawa, for a summary report to Maritime pathologists on the seed-borne diseases affecting crops grown for seed in these provinces, with particular reference to seed testing observations.

3. Inspection of crops for seed registration should be confined to producers of elite and foundation stock seed in 1942, due to limitations of personnel, etc., at the federal laboratories.

4. (a) Publications similar to Circular 20 and 21 of the Division of Entomology and Plant Quarantine, U.S.D.A. on spraying devices, insecticides, etc., should be made available in Canada to extension workers.

(b) Handbooks on plant diseases and their control, as suggested at the 1938 Conference of officers of the Division of Botany, should be proceeded with as soon as possible and made available to extension and inspection services.

(c) Circular letters are recommended as a medium of sending seasonal disease control recommendations to selected growers and key men. This applies particularly to newer diseases and control measures for which special emphasis is required.

5. The production of the Katahdin variety of potato should be discouraged in districts where other varieties are grown for certification, on account of its method of carrying leaf roll and the present serious situation, particularly in New Brunswick and Prince Edward Island seed potato producing areas.

6. (a) A cooperative project on seed treatment of potatoes should be conducted where possible this year to test the value of available chemicals as substitutes for those now in use and unlikely to be available in 1943. Suggested materials include: Copper oxides (red and yellow); Spergon-tetrachloro-parabenzoquinone; BuBay 1205U —tetramethyl thiuram disulphide; Dinitro-ortho-cresol (Elgetol) 1:1000 to 1:100,000; Microfine sulphur (Sulforon); and Malachite green 1:1000 to 1:100,000.

(b) Spraying experiments on potatoes should be continued with special reference to reduced dosages and trials on substitute materials.

7. It was agreed that further spraying experiments on the control of the insect vector of carrot yellows be limited to seasons when the hopper population increases rapidly before August 1. Further observations on rotation systems and the prevalence of alternate hosts of the virus are warranted.

8. D. J. MacLeod was requested to interview officers of the Plant Products Division at Sackville in respect to seed testing with a view to encouraging more coordination in the seed production programme.

QUEBEC

Rapport de la réunion du 6 février 1942.

A cette réunion il fut décidé ce qui suit:
(Nominations)

1. que le comité local de Ste-Anne de la Pocatière soit composé des membres suivants: MM. E. Campagna, C. Perrault (Président), R.-O. Lachance, B. Baribeau, A. Payette et H. Généreux.

2. que M. Henri Généreux soit nommé secrétaire du comité provincial.

3. que le comité régional du Québec se compose de cinq comités locaux groupant les phytopathologistes résidant aux endroits ci-dessous, avec leur chef de groupe temporaire: Montréal (F. Godbout); Québec (O. Caron); Oka (Fr. Léopold); Collège Macdonald (J. G. Coulson) et Ste-Anne de la Pocatière (C. Perrault).

N.B.—Chaque comité local est libre de se choisir le chef qu'il désirera.
(Suggestions)

4. que les phytopathologistes du Québec soient invités à écrire un ou plusieurs articles dans les journaux, concernant la protection des cultures, compte tenu de leur région respective.

5. que les phytopathologistes résidant aux endroits susmentionnés soient invités à se réunir le plus tôt possible, pour donner suite aux suggestions du comité central.

6. que copie des suggestions de chaque comité local soit envoyée au comité régional, qui les fera parvenir ensuite au comité central.

7. que les phytopathologistes profitent de la réunion de la Société de Protection des Plantes du Québec pour discuter des problèmes de l'effort de guerre des phytopathologistes du Québec.

8. que le Dr Georges Maheux, chef du Service de Protection des Plantes du Québec, fasse une invitation pressante au chef du Service agronomique pour attirer son attention sur la protection des plantes en temps de guerre.

9. que le catéchisme de la Protection des Plantes qui a été préparé l'an dernier, soit mis à point et distribué aux agronomes.

10. que le comité local de Ste-Anne approuve les résolutions adoptées par la Société Américaine de Phytopathologie.

11. que les recherches ayant trait à la protection des cultures soient encouragées par le Ministère provincial d'Agriculture, et que les enquêtes commencées soient poursuivies et intensifiées.

HENRI GENEREUX,

Secrétaire régional

EASTERN ONTARIO

A meeting of the Eastern Ontario regional group was held at Ottawa, February 16, 1942. Twelve members of the Central Laboratory, Division of Botany and Plant Pathology, and G. A. Ledingham of the National Research Council were present. Chairman: I. L. Conners.

The chairman reviewed the events leading up to this meeting, namely, the President's report of the Dallas meeting of the American Phytopathological Society. The meeting was asked to consider this report and to determine what recommendations it would make on the several topics.

Plant Quarantines. It was pointed out by I. L. Conners that the war had already taken care of the matter of imports to a large extent. H. T. Gussow informed the meeting that during and after the last war Britain waived the quarantine on potatoes due to the food shortage. Thus, economic conditions may regulate quarantines. However, it was agreed that domestic quarantines should be maintained and even extended where necessary. H. T. Gussow pointed out that any quarantine regulations could be modified and that each case must be decided on its own merits. After considerable discussion, it was moved by H. T. Gussow and seconded by H. N. Racicot that our present domestic quarantines be reviewed to insure their stricter enforcement and to suggest improvements for new legislation where needed. Any person who desires to suggest changes in or additions to our present laws should communicate them to the President of the Society. Motion carried.

Plant Disease Surveys. I. L. Conners reported that the Plant Disease Survey was being carried on as usual, but that it will likely be curtailed through staff reductions by army enlistments. Some extension of the survey has been made in the case of the Cereal Division. F. L. Drayton pointed out that reductions of travelling expenses would likely curtail inspection trips primarily for the purpose of disease survey. I. L. Conners asked the meeting to go on record as to what phases of the survey should be stressed.

H. T. Gussow suggested that officers in charge of the Dominion Laboratories should call attention to the need of volunteer service by publication and by approaching the provincial governments and botany departments of universities to obtain from their staffs and students aid in this service. From further data in these surveys, it would be possible to write more concretely to governments giving them information concerning various areas. We should solicit interest and show where people could make a contribution to surveys. It is not so much a matter of furthering the survey, but of passing on information that we have on hand—extension service. But, at the same time, we could receive information for the survey as opportunity presents.

After considerable discussion the following motions were moved by H. T. Gussow, seconded by G. A. Scott, and approved by the meeting:

1. That it is the opinion of this meeting that plant disease surveys should be expanded in every possible way and, as a means to this end, plant pathologists and heads of botany departments of all the universities and agricultural colleges across Canada be approached to enlist their students in the collection of information for the Plant Disease Survey on the occurrence and prevalence of plant diseases in areas where they may be located. An appeal to the alumni of the agricultural colleges to participate in the undertaking is also proposed, if a feasible plan of reaching the individual alumnus can be suggested.

2. That special attention should be given to the collecting of information on the diseases of root crops that are being grown expressly for seed, especially in the Maritime Provinces, and also of certain other crops, the production of which is being rapidly expanded, e.g., sugar beets, flax, soybeans, etc.

Extension Service. After a full discussion of this topic, it was moved by H. T. Gussow and seconded by G. A. Ledingham that attention should be directed to the authorities concerned emphasizing the great and urgent need of an extension service in plant pathology in Canada. Motion carried.

Forest Pathology. H. T. Gussow pointed out the importance of forest pathological research on such subjects as the elimination of defects in structural timbers (aeroplane spruce), and elimination of waste, as in sinkage studies, etc.

General Topics. After considerable discussion the following motions were approved by the meeting:

1. Moved by H. T. Gussow and seconded by C. G. Riley:
That we place ourselves on record as in favour of an increase in the length of the daily period of work as the need arises or as our staff is depleted to insure, particularly, that the extension phases of our programme receive the attention they deserve.

2. Moved by I. L. Conners and seconded by H. T. Gussow:
That with the virtual disappearance of a border between Canada and the United States, we make known through the Canadian Phytopathological Society our desire to cooperate in the closest possible manner with our fellow pathologists in the American Phytopathological Society in the United States and to join with them in pooling our information and in formulating common policy.

While it is true that the greatest emphasis should be on extension activities for the duration of the war, we believe that the present programme of research should be reviewed to ensure that no phase of research of vital importance is being neglected or omitted.

MANITOBA

A meeting of the Manitoba regional group was held at Winnipeg, Man., March 5, 1942. Chairman: F. J. Greaney. The following topics were discussed: (1) plant disease surveys, (2) extension work in plant pathology, and (3) the availability of fungicides.

Plant Disease Surveys. A discussion took place on the question of making plant disease surveys of special crops that have recently been assuming importance in Manitoba, such as sugar beets, soybeans, and field peas. J. H. Craigie suggested that a survey of Manitoba be made in 1942 for sugar beet diseases.

In a discussion of the importance of cereal smuts in Canada, it was pointed out that considerable losses from these diseases occur in certain parts of the country. The importance of obtaining a more detailed picture of the cereal smut situation in different parts of the country was emphasized. It was pointed out that knowledge was lacking of the extent to which the present smut situation could be remedied by the application of such laws as are now existing on the statutes in different provinces relative to the amounts of smut infection permissible in fields of wheat, barley, oats, etc. The following motion was moved by W. J. Cherewick and seconded by W. A. F. Hagborg, and approved.

(1) That steps be taken to discover what is known about the present prevalence of cereal smuts throughout Canada, (2) that more attention be given, if necessary, to surveys of the presence of cereal smuts, (3) that a study be made of the laws present on the statutes in the different provinces with a view to discover whether any enactments are in existence that could be made use of to enforce the control of cereal smuts.

Extension Work in Plant Pathology. The urgent need of more extension work in plant pathology was discussed. F. J. Greaney brought up the question of the lag that exists between the development by investigators of approved plant disease control methods and their adoption by the growers of farm crops. It was generally agreed that this lag should be eliminated as far as possible. It was therefore moved by J. H. Craigie and seconded by B. Peturson, and approved, that the Dominion Department of Agriculture give immediate consideration to the possibility of organizing a plant pathological extension service in Canada.

The Availability of Fungicides. The question of a possible serious shortage of fungicides in Canada was raised by T. Johnson. The meeting was generally of the opinion that a lack of fungicidal supplies would seriously aggravate certain plant diseases and that steps should be taken as soon as possible to ascertain what the present situation is. It was therefore moved by T. Johnson and seconded by J. E. Machacek that Science Service investigate the availability of fungicides in Canada and ascertain what measures can be taken to ensure that such supplies be available to Canadian users. Carried.

SASKATCHEWAN

In February, 1942, a summary report of meetings held in Saskatchewan during 1941 and 1942 was forwarded to the Council of the Society by the regional representative, T. C. Vanterpool. The following members attended these meetings and contributed to the discussions: R. J. Ledingham, H. W. Mead, R. C. Russell, B. J. Sallans, P. M. Simmonds, and T. C. Vanterpool. A summary of the discussions and recommendations follows:

Recommendations of Regional Concern

1. **Seed grain examination.** That the desirability of the examination of cereal seed grain for germinability and **freedom from disease** be brought to the attention of farmers, that it be strongly encouraged, that it be conducted either by government or private agencies with the disease phase under the supervision of qualifield plant pathologists, that adequate facilities for such examination be provided where they are not now available, and, finally, that the present time is highly appropriate for such action. It was felt that seed examination should precede seed treatment, which latter should not be done indiscriminately.

2. **Spoilage of stored grain.** That the possible increase in the spoilage of stored grain be kept under close observation, as it is known that some injury has recently occurred and that further serious damage may be caused because of the large amount of grain stored in temporary structures, especially should wet weather prevail. Further, that farm agents, or other qualified agents, notify farmers on the praries by radio or other appropriate means of the necessity of frequently examining their grain, while stored in temporary structures, for evidences of heating by moulds or for the presence of mites.

3. **Vegetable diseases.** That vegetable diseases in the field and in storage should be studied as they occur and develop under conditions prevailing on the prairies. It is recognized that the storage of fruits may need some attention.

Recommendations of National Concern

1. **That extension pathology be sponsored.** It was felt that there is an unnecessary lag in approved results of research being adopted by the farmers. Also, after adoption, they are frequently not carried out efficiently. This is a matter of extension pathology and should be given attention by the proper authorities now. It should be done with as little derangement as possible of existing research work.

2. **Transfer of plant pathologists.** It is felt that a transfer of pathologists might provide a means of solving rapidly the practical phases of disease problems that may be new to or of increasing importance in a district. To cite a specific example: a vegetable pathologist might be transferred to Saskatchewan to study, locally, diseases of vegetables, especially potatoes, as they occur in the field and in storage.

3. **The maintenance and extension of plant disease surveys.** This is of importance both regionally and generally. It is felt that the local surveys on cereal diseases should be maintained and, if found necessary, be extended to include a more detailed survey of those crops the acreage of which has increased in the last few years and is still increasing, such as flax, grasses, and sugar beets. The War Emergency Committee should suggest that an endeavour be made to get the Plant Disease Survey report distributed before the beginning of the next crop year.

4. **Seed cleaning and treating.** If seed treatment is found necessary after Regional Recommendation No. 1 has been carried out, it might be advisable for those farmers who have not the proper equipment or who for any reason are unable to treat their seed properly to take advantage of opportunities offered by seed cleaning and treating centres. The whole question of producing seed of the highest quality, and of using certified seed, where available, or other high grade seed for planting, should, of course, be stressed at this time.

ALBERTA

The Alberta group of the Canadian Phytopathological Society held a meeting at Edmonton, Alta., on February 17, 1942. Chairman: G. B. Sanford. The following members were present: W. C. Broadfoot, M. W. Cormack, J. G. Grimble, A. W. Henry, G. B. Sanford, and L. E. Tyner. The meeting discussed the disease problems of major field and horticultural crops in Alberta, with a view to making recommendations of immediate value to Canada's war effort in the production of food. The more important problems were thoroughly reviewed, and many valuable suggestions regarding plant disease control and extension methods made. A brief summary of the report of the meeting follows:

Extension Methods. The recommendations of this meeting are wholly in line with the report submitted by the original War Emergency Committee, June 20, 1940. Now, as then, the most effective contribution is by passing on to the producer the knowledge already available. That is to say, much and effective extension work transcends, for the moment, all possible research work. The following recommendations are made by the Alberta group:

1. That the central committee devise a list of slogans and charts suitable for general use, and endeavour to have them made available for distribution or use, as the case may be.

2. To advise each local group before these charts or slogans are finally adopted.

3. Certain press articles might be run more than once in any paper.

4. Federal and local government agencies might increase use of radio and issue of press articles.

5. Funds be made available for pathologists to do more extension work during war emergency.

6. Agricultural agents attend a short course each year to become familiar with details of plant pathological problems.

Control Recommendations. Definite disease control recommendations were made for the following crops: Wheat, oats, barley, flax, beans, peas, forage grass, potatoes, and sugar beets. A full report of the meeting was submitted to the Field Crops Branch, Alberta Department of Agriculture, Edmonton, Alta.

Summer Meeting, 1942. In June, 1942, a meeting of the Alberta group was held at Olds, Alta., in conjunction with the annual meeting of the C.S.T.A., G. B. Sanford acted as Chairman. At this meeting the work carried on in Alberta on crown root rot and bacterial wilt of alfalfa was reviewed by M. W. Cormack, and a discussion on seed treatment problems was led by A. W. Henry and W. C. Broadfoot. H. T. Gussow and G. A. Scott, Division of Botany, Ottawa, J. E. Machacek, Winnipeg, Man., and officials of the Calgary, Saskatoon, Winnipeg, and Ottawa seed laboratories of the Plant Products Division were in attendance, and contributed to the discussions. The meeting adopted the following resolutions concerning seed treatments, and recommended that they be forwarded to the Council of the Society for further attention and action.

1. That the use of formaldehyde for the treatment of wheat and other hulless seeds be discouraged in every way possible.

2. That organic mercury dusts be recommended for the treatment of wheat, oats, barley, and flax, and that treatment of the seed be made at least 24 hours prior to seeding.

3. That if formaldehyde is used at all it should be limited to the treatment of seeds of special lots of smutted hulled oats.

BRITISH COLUMBIA

On January 15, 1942, the Council of the Society received a report from W. Newton, Regional Representative, British Columbia, in which the matter of closer Canadian-American cooperation in plant disease investigation and control was discussed. The tentative suggestions advanced by the British Columbia group in respect to this matter were as follows:

1. That all restrictions be removed as quickly as possible that prevent Canadian pathologists from conferring with American pathologists in adjacent and similar climatic and geographical areas.

2. That international advisory councils of pathologists be set up for every geographical area where similar crops and crop problems are involved to guide and develop international cooperation, and cooperation within the geographical area as a whole.

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